



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 13, 1988

TO: Board of Oil, Gas and Mining
THRU: Ken May, Associate Director
THRU: Lowell Braxton, Administrator
FROM: Frank Filas, Reclamation Engineer

RE: Request for Board Concurrence on Form and Amount of Surety
for the Georgia Pacific Gypsum Quarry, M/041/009, Sevier
County, Utah

Attached is an executive summary and reclamation estimate for the Georgia Pacific Gypsum Quarry operations near Sigurd Utah. Also attached is a self bonding and indemnity agreement in the amount of \$122,100. and a self bonding qualification sheet. The bond has been prepared using the Division's current self bonding form. Barbara Roberts and Alan Bachman of the Attorney General's Office have recommended that a revised self bonding form and indemnity agreement be used for self bonding. The revised self bonding form is enclosed for your review.

The Gypsum quarry has been in continuous operation under the current operator for more than five years and the operator meets the criteria for self bonding. Georgia Pacific has been easy to work with and has done good reclamation work at some of the older quarry areas at this site. It is therefore recommended that a self bond be accepted and that the revised form be used to implement the self bond.

re
enclosure
0783Q-86

*Board approved on 5-26-88.
FF*

EXECUTIVE SUMMARY - NEW PERMIT

Mine Name: Georgia Pacific Gypsum Quarry I. D. No.: M/041/009
Operator: Georgia Pacific Corporation County: Sevier
P. O. Box 68 New/Existing: Existing
Sigurd, Utah 84657 Mineral Ownership: Georgia Pacific
Telephone: (801) 896-5406 Surface Ownership: Georgia Pacific, BLM
Contact Person: Mr. D. C. Corkill Lease No.(s): N/A
Life of Mine: 19 years Permit Term: Life of Mine
Legal Description: T23S, R2W, Section 1
Mineral(s) to be Mined: Gypsum
Mining Methods: Gypsum outcrops are quarried
Acres to be Disturbed: 50-quarry area, 10-roads
Present Land Use: Mining and limited grazing
Postmining Land Use: Limited wildlife grazing
Variances from Reclamation Standards (Rule M-10) Granted: M-10(5) Highwalls *
* Where regrading would jeopardize the safety of the equipment operator.

Soils and Geology:

Soil Description: Gypsum outcrops consisting of coarse, unweathered gypsum and clay.
pH: 8.0
Special Handling Problems: The small amount of topsoil is difficult to salvage due to the steep terrain.
Geology Description: Vertically dipping beds of gypsum, 20 to 100 feet in thickness occur along ridge tops.

Hydrology:

Ground Water Description: The ground water is below the mining area.
Surface Water Description: This is a very arid area. The reclaimed quarry areas will be contoured so as to be self draining.
Water Monitoring Plan: N/A

Ecology:

Vegetation Type(s); Dominant Species: Scattered cedar, saltbrush, and sagebrush
Percent Surrounding Vegetative Cover: 5%
Wildlife Concerns: Continued mining will have little affect on wildlife.
Surface Facilities: A gypsum board plant is located in Sigurd. This plant is off site and is not included in the plan.
Mining and Reclamation Plan Summary: See Attached

Surety:

Amount: \$ 122,100.
Form: Self Bonding
Renewable Term: N/A

Mine and Reclamation Plan Summary
Georgia Pacific Gypsum Quarries
M/041/009

During Operations

Haul roads will be constructed to the deposit and the gypsum will be drilled and blasted in 20-foot benches. The broken rock will be hauled to the Sigurd Plant for processing. Available topsoil will be saved and stockpiled for future reclamation.

Following Operations

All areas mined out from 1975 to the present will be reclaimed within the next five years. Current and future operations will be reclaimed within one year after completion of quarrying a deposit.

Reclamation of the quarries is to consist of regrading the disturbed area so that it blends in with the surrounding terrain. Stockpiled topsoil will be placed upon the regraded area, then the area will be ripped with a dozer and broadcast seeded with native vegetative species. Haul roads which do not have a postmining use will be reclaimed in the same manner.

Reclamation Bond Estimate
Georgia Pacific Quarries
M/041/009
by
Frank J. Filas
February 11, 1988

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST/ACRE</u>
<u>Mine Site</u>			
1. Backfill and Grade, D-9H	4 hrs	\$165.00/hr	\$ 660
2. Spread Stockpiled Soil & Rip, D-9H W/Ripper	2 hrs	165.00/hr	330
3. Seed and Fertilize			
Farm Tractor W/Disk	2 hrs	50.00/hr	100
Laborer	2 hrs	11.00/hr	22
Seed	20 lbs	4.22/lb	84
Fertilizer	200 lbs	.19/lb	38
4. Reseed if Necessary Assume 20% of Area to be Reseeded			<u>49</u>
	Subtotal		\$1,332
	Ten Percent Contingency		<u>133</u>
	Total (1988 Dollars)		<u><u>1,465</u></u>
Total in 2007 dollars (2.3% inflation for 19 years)			\$2,257

Note: The cost per acre for seeding only is \$322 (1988\$) and
\$496 (2007\$).

<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>COST/ACRE</u>
<u>Roads</u>			
1. Recontour Road Area			
D-9H	2 hrs	\$165.00/hr	\$ 330
2. Spread Stockpiled Soil			
and Rip, D-9H W/Ripper	2 hrs	165.00/hr	330
3. Seed and Fertilize			
Farm Tractor W/Disk	2 hrs	50.00/hr	100
Laborer	2 hrs	11.00/hr	22
Seed	20 lbs	4.22/lb	84
Fertilizer	200 lbs	.19/lb	38
4. Reseed if Necessary			
Assume 20% of Area			
to be Reseeded			<u>49</u>
	Subtotal		953
	Ten Percent Contingency		<u>95</u>
	Total (1987 Dollars)		<u>\$1,048</u>
Total in 2007 Dollars (2.3% inflation for 19 years)			\$1,614

Total Reclamation Cost - 19 Year Bonding Period (Life of Mine)

Quarry Areas: 46.1 acres x \$2,257/acre = \$104,050
 3.9 acres x \$ 496/acre = \$ 1,930

Roads: 10.0 acres x \$1,614/acre = \$ 16,140

Total in 2007 Dollars \$122,120

Summary of Disturbed Areas
Georgia Pacific Corporation
M/041/009

Note: The acreages below were determined by planimetering the quarry areas shown on the maps submitted in the 1987 Updated Plan. The 1987 reclaimed acreage was determined from the maps received February 4, 1988.

<u>CLAIMS</u>	<u>ACRES MINED OUT</u>	<u>ACRES CURRENTLY MINING</u>	<u>ACRES FUTURE</u>
Crescent	11.7	2.5	17.5
King's Meadow	3.7		
Western-North	4.2		
Western-South	6.5		.2
Western 40 & 41	<u>1.5</u>	<u> </u>	<u>5.2</u>
Totals	27.6	2.5	22.9

Total Quarry Acreage to be Disturbed = 53.0 Acres

QUARRY ACREAGE RECLAIMED IN 1987

<u>CLAIMS</u>	<u>COMPLETELY RECLAIMED</u>	<u>RECLAIMED, NOT SEEDED</u>
Crescent	0.0	3.0
Western-North	<u>3.3</u>	<u>0.9</u>
Totals	3.3	3.9

The 3.3 acres fully reclaimed will not be included in the bond estimate. The remaining 49.7 quarry acres will be bonded. 45.8 acres will be bonded for complete reclamation and 3.9 acres for seeding only.

ROADS

Ten acres of roads will be used for the calculation of the reclamation estimate. This acreage comes from the Mining and Reclamation plan and is probably on the low side. All mine roads which do not have a continuing use after mining is completed will have to be reclaimed.